

FIG. 1 is a block diagram of a network architecture. The network includes a Mobile Station (MS) 12a, 12b, 12c, and 12d, each connected to a Base Transceiver Station (BTS) 14a, 14b, 14c, and 14d respectively. The BTSs are connected to a Base Station Controller (BSC) 16. The BSC is connected to a Mobile Switching Center (MSC) 18. The MSC is connected to a Packet Data Service Network (PDSN) 20. The PDSN is connected to an IP Network 2 and a Public Switched Telephone Network (PSTN) 22.

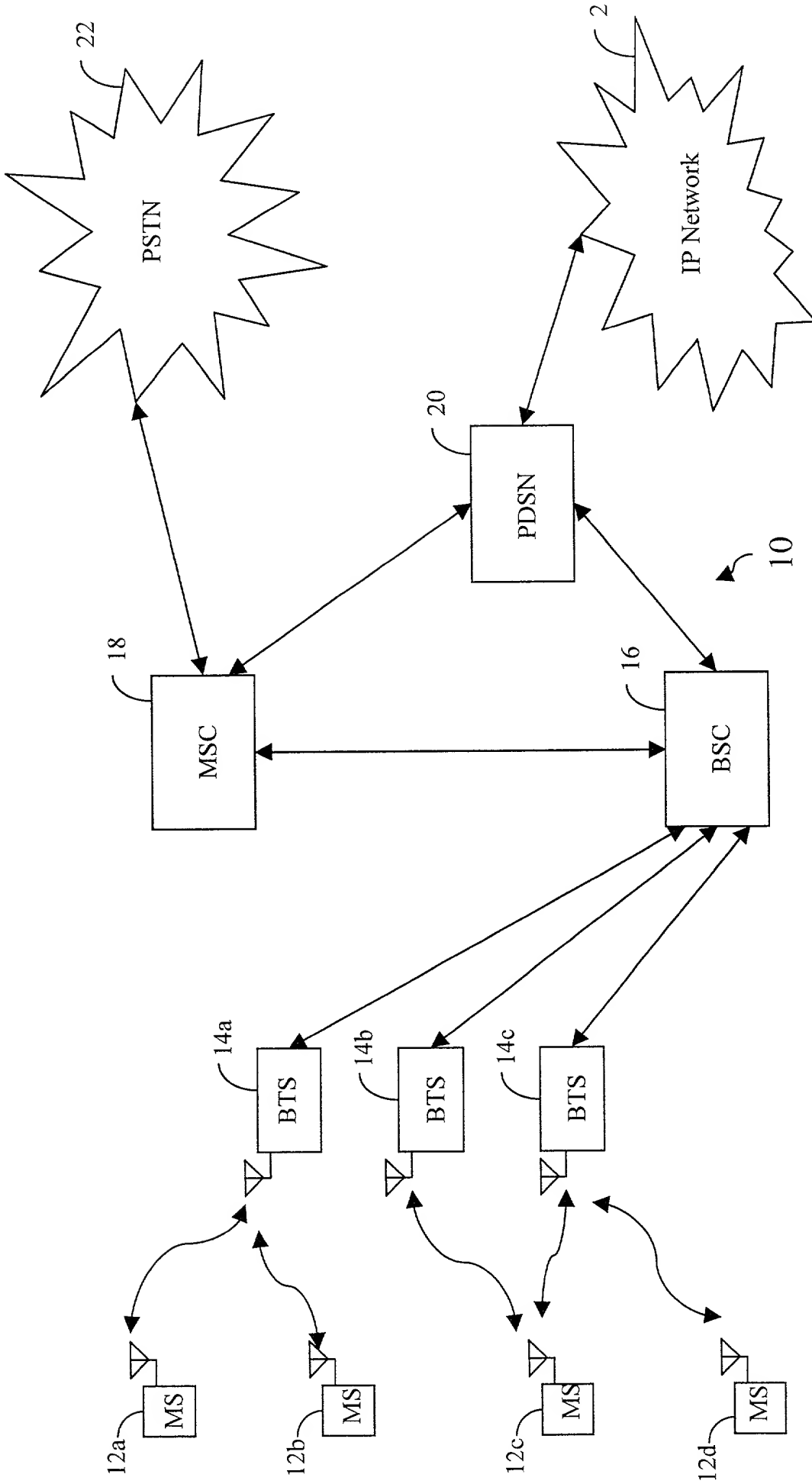


FIG. 1

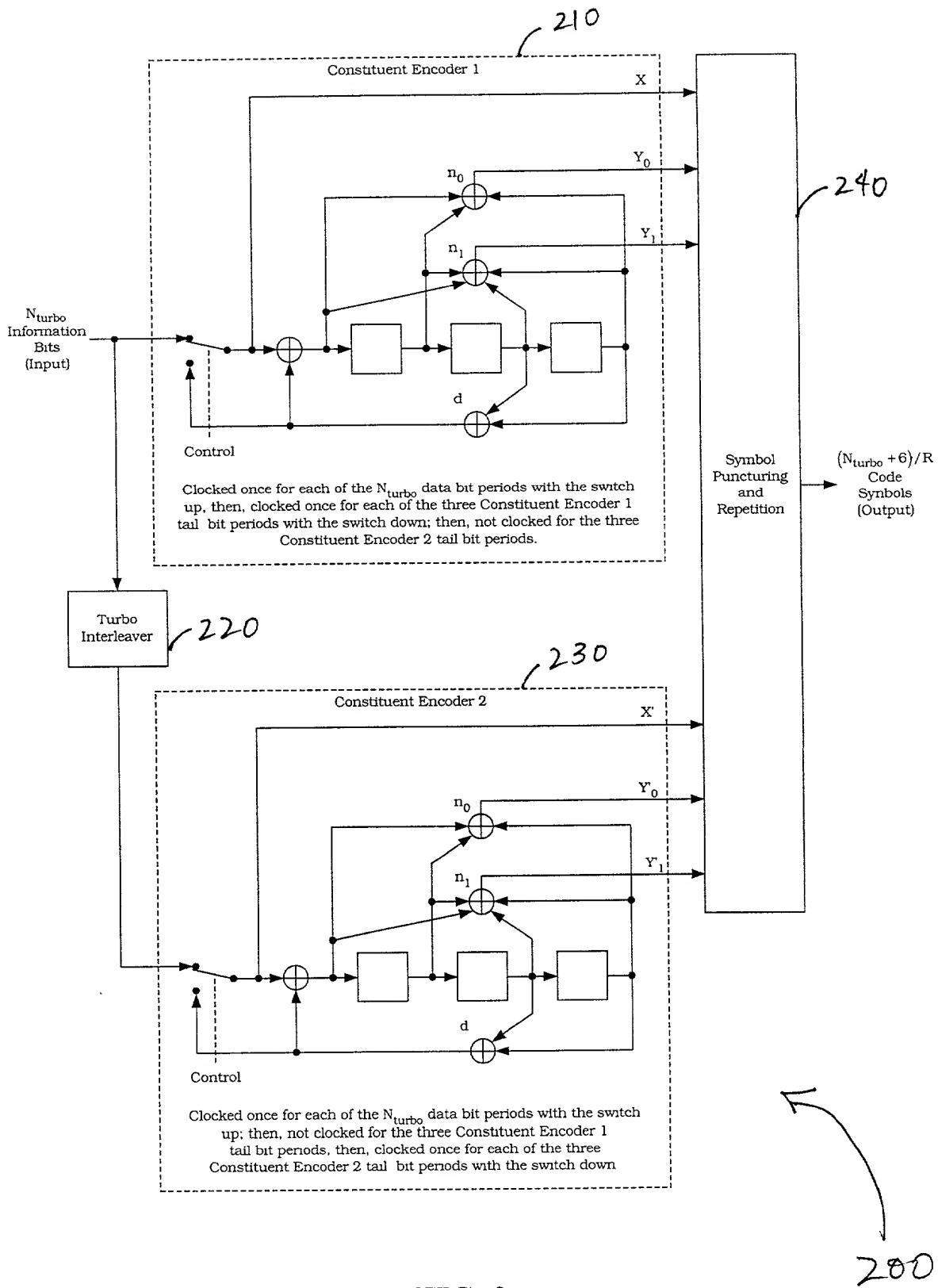


FIG. 2

FIG. 3 is a block diagram of a transmitter system. The system includes a Turbo Encoder (300), a Scrambler (310), a Channel Interleaver (320), and a Modulation Element (330). The input Data is processed by the Turbo Encoder (300), then the Scrambler (310), followed by the Channel Interleaver (320), and finally the Modulation Element (330), which outputs I and Q signals.

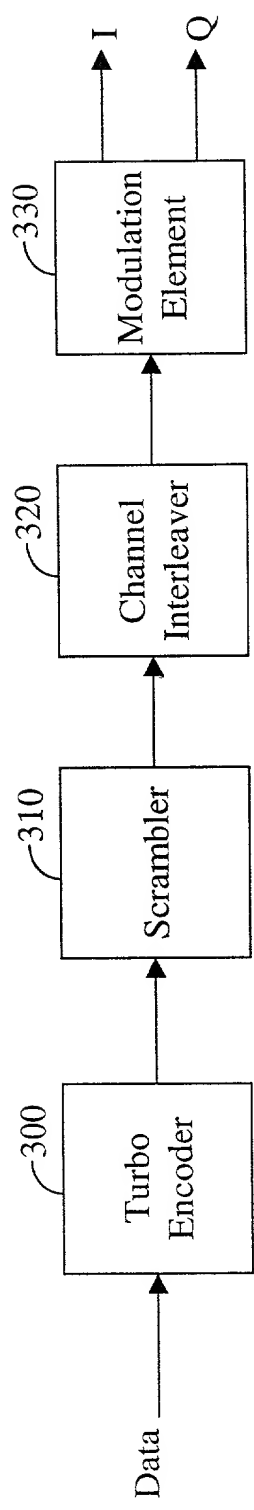


FIG. 3

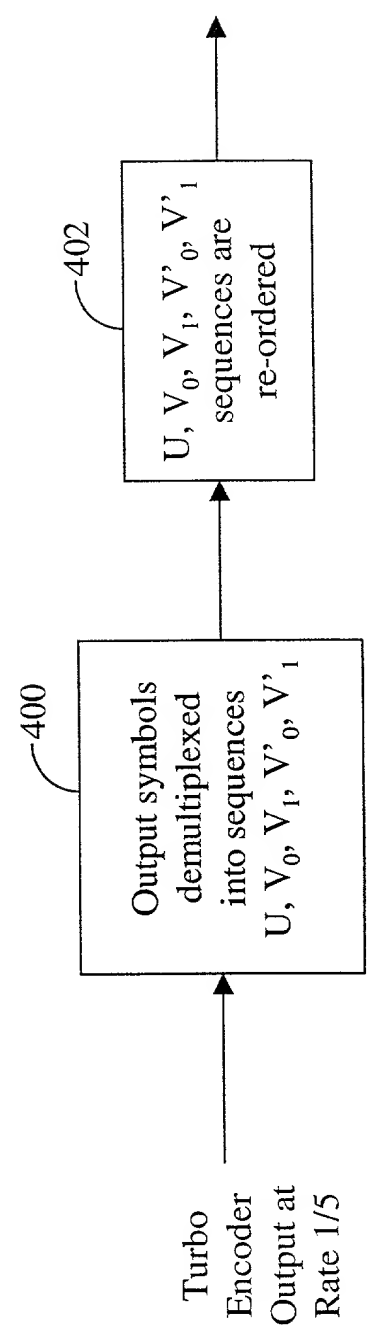


FIG. 4

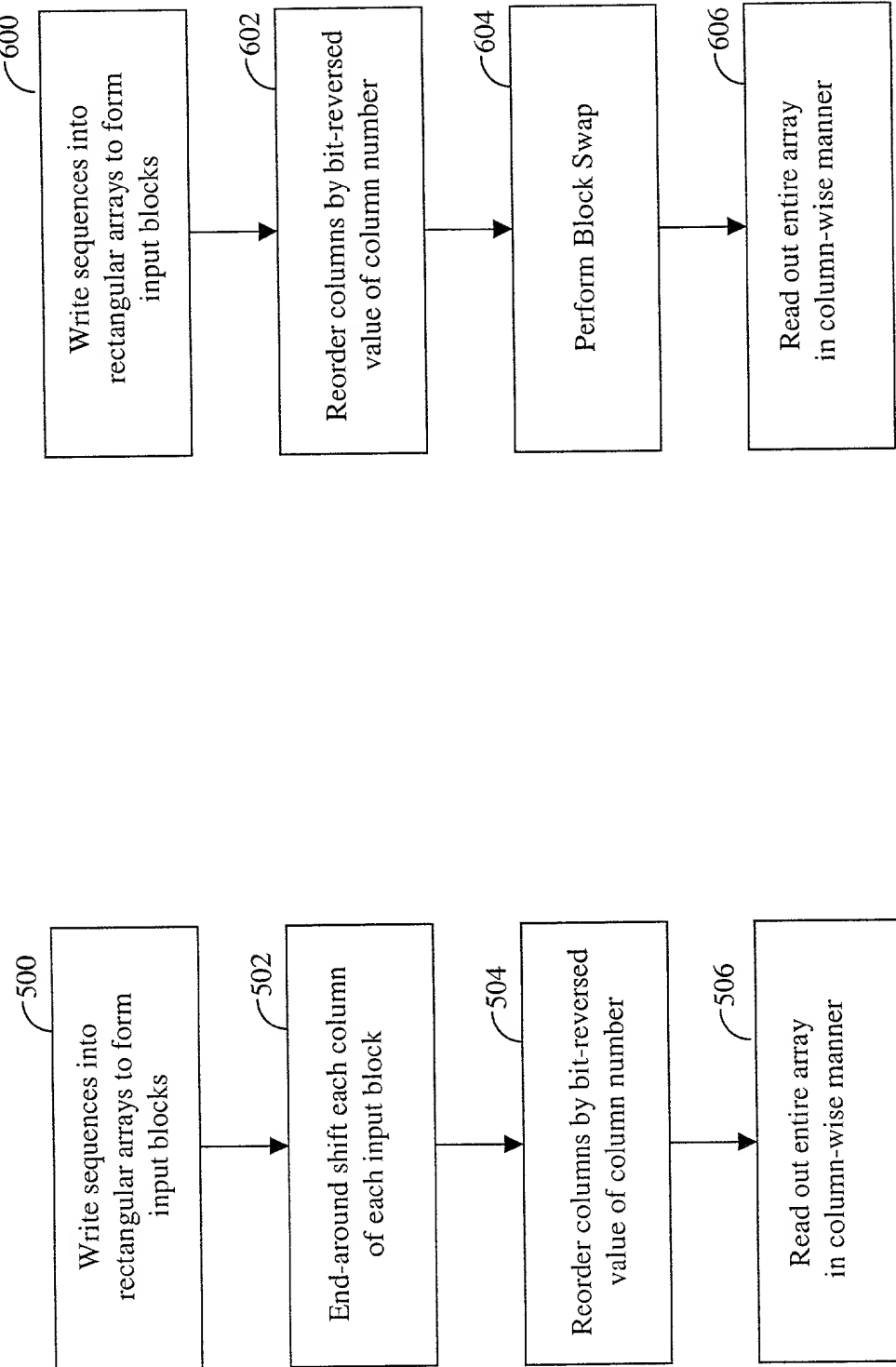


FIG. 6

FIG. 5

FIG. 7A: Block swap pattern for 8-PSK

U block				$V_0V'_0$ block							
	3'		4'	1'	2'	5	6		7	8	
1		2				5'			7'		
3		4					6'			8'	

FIG. 7A: Block swap pattern for 8-PSK

U block				$V_0V'_0$ block					
	3'			1'			6		
1					4		6'		
	2				4'	5			
3				2'		5'			

FIG. 7B: Block swap pattern for 16-QAM

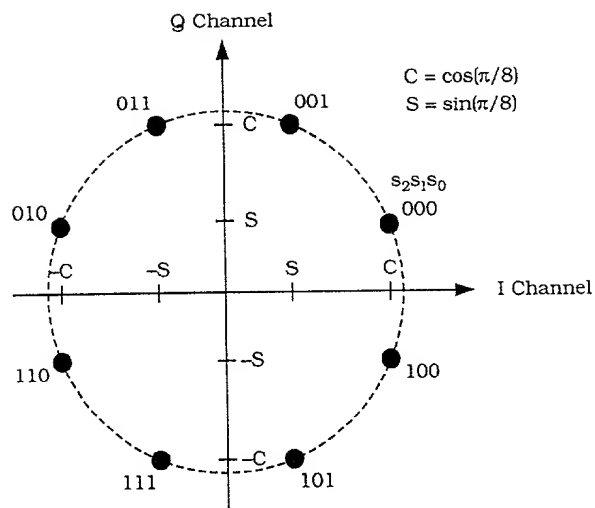


FIG. 8

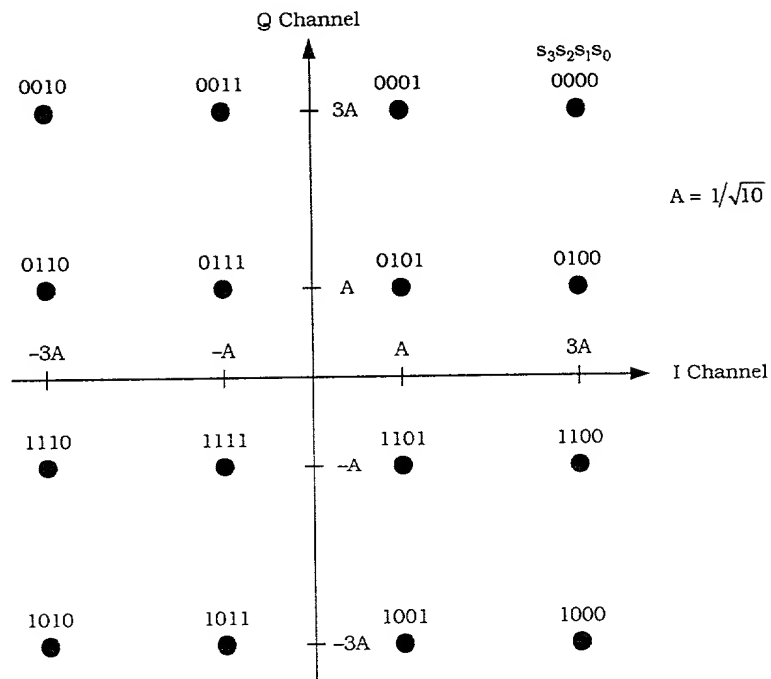


FIG. 9